Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:	)	
	)	
NextNav Petition for Rulemaking	)	
	)	WT Docket No. 24-240
Enabling Next-Generation Terrestrial Positioning, Navigation, and Timing and 5G: A Plan for the Lower 900 MHz Band (902-928 MHz)	))	RM-11989

To: The Wireless Telecommunications Bureau and Office of Engineering and Technology

OPPOSITION OF COACHCOMM, LLC TO NEXTNAV PETITION FOR RULEMAKING

CoachComm, LLC ("CoachComm") hereby respectfully opposes the above-referenced Petition for Rulemaking.[1] The Petition for Rulemaking was filed by NextNav, Inc. ("NextNav"), whose operating subsidiary, Progeny LMS, LLC ("Progeny"), is one of two active licensees in the multilateration Location and Monitoring Service ("M-LMS"). NextNav asks the Commission to reconfigure the 902-928 MHz band ("Lower 900 MHz Band") and adopt new rules to enable the deployment of a 5G terrestrial positioning, navigation, and timing ("PNT") network that "complements and backs up" the U.S. Global Positioning System ("GPS") by making 15 megahertz of frequency-division-duplex ("FDD") spectrum available for incorporation into broadband networks.[2]

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[1] NextNav Petition for Rulemaking, Enabling Next-Generation Terrestrial Positioning, Navigation, and Timing and 5G: A Plan for the Lower 900 MHz Band (902-928 MHz), RM-11989, WT Docket No. 24-240 (filed Apr. 16, 2024) ("Petition"). NextNav also filed a supplement proposing specific part 90 rule revisions. Letter from Robert Lantz, General Counsel, NextNav Inc., to Marlene H. Dortch, Secretary, FCC (filed June 7, 2024) ("Supplement") (Petition and Supplement jointly referred to as "NextNav Petition"). *See Wireless Telecommunications Bureau and Office of Engineering and Technology Seek Comment on NextNav Petition for Rulemaking*, Public Notice, DA 24-776 (Aug. 6, 2024).

As the Commission knows, the Lower 900 MHz Band currently is shared among a wide variety of users, including operators of unlicensed Part 15 devices. NextNav's proposal would eviscerate the current FCC rules to provide for a PNT solution that uses "a small amount of capacity" in the band while proposing that "mobile network providers can use the vast majority of the downlink capacity for broadband,"[3] at the expense of unlicensed users and applications. Further, NextNav's proposal would not, as it argues, merely "[r]emove special treatment for unlicensed operations vis-à-vis licensed operations in the band;"[4] to the contrary, adoption of NextNav's proposal would leave unlicensed users that have been in the band for decades, and prior to Progeny, totally vulnerable to massive increases in the level of interference received, and without any safe harbor in terms of interference caused to the proposed broadband service. The NextNav proposal is contrary to the public interest, and the Commission must therefore reject NextNav's proposals.

I. COACHCOMM UNLICENSED DEVICES IN THE BAND HAVE OVER 50,000 ACTIVE USERS.

CoachComm is a privately held company with headquarters in Auburn, Alabama. Established in the early 1990s, CoachComm is engaged in the design, manufacture, and marketing of wireless communications systems worldwide in a variety of markets and applications. CoachComm has been utilizing the unlicensed 902-928 MHz band for its products since 2011, via three brands that are used for multiple applications and in vertical markets:

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[2] Petition at i.

[3] *Id.* at iii.

[4] Supplement at A-1.

CoachComm

CoachComm introduced its sideline communications product for football in 1991 and has become the nation's industry leader in sideline communications. Every weekend of the football season, many tens of thousands of football coaches and related personnel utilize CoachComm wireless technology for critical game day communications. Over 90% of college football Division I Football Bowl Subdivision ("FBS") teams, as well as a majority of college football Division I Football Championship Subdivision ("FCS") teams, utilize CoachComm products that operate unlicensed in the 902-928 MHz band. Numerous college football Division II, III, and Junior College teams and thousands of high school football teams also use CoachComm 902-928 MHz unlicensed products. Additionally, numerous Division I, II, III, and Junior College referees and officials, as well as numerous Division I college baseball and softball teams, use CoachComm 902-928 MHz products.

Pliant Technologies

Customers and events that utilize Pliant Technologies 902 – 928 MHz products include:

- Every major television network in the United States, including ABC, CBS, NBC, FOX, TBS, CNN, ESPN, MSNBC, CSPAN;
- Television shows such as Dancing with the Stars, American Idol, and others;
- Concert touring artists including Lady Gaga and Garth Brooks;
- Many touring acts/shows, for example, Cirque Du Soleil and WWE;
- Major televised sporting events, including the Super Bowl, the MLB All-Star Game, the NBA All-Star Game, the New York City Marathon, and others;
- Major televised award shows, including the Oscars, the Grammys, the MTV Video Music Awards, and the County Music Awards;
- Major televised national political events such as the Presidential Inauguration, the Democratic National Convention, and the Republican National Convention; and

- Many Broadway and off-Broadway theater shows, such as Aladdin, Wicked, and Cats.

CrewPlex

CrewPlex's 902-928 MHz products are used for industrial communication requiring hands-free, full-duplex, multi-channel communication in applications such as for nuclear power plants regarding outages and spent fuel removal, and for tower crane operation, grading, vacuum trucks, paving, horizontal drilling, and other industrial uses.

All three product lines referenced above are primarily voice communication applications but utilize telemetry/command/control data along with the audio.

II. THE FCC MUST NOT SACRIFICE THE UTILITY OF MULTIPLE UNLICENSED DEVICES TO BENEFIT A SINGLE COMPANY

NextNav indicates that its PNT service is not economically viable by itself,[5] and thus NextNav proposes to subsidize its buildout and commercial adoption by allocating the band for commercial broadband in order to incent mobile network operators to invest in the nationwide buildout of commercial broadband service. In essence, the NextNav acknowledges that a terrestrial PNT service is not enough of a value add to warrant widescale commercial adoption by broadband providers without the added bonus of additional spectrum for broadband services. NextNav would take spectrum away from unlicensed users to offer additional spectrum as a carrot to mobile broadband providers to make the PNT service more attractive.

The operations proposed by NextNav envision a nationwide buildout of high-power base stations that ubiquitously would cover all the areas in the country where wireless broadband service is provided. Such a buildout, combined with removing protections for unlicensed operations would leave no room for unlicensed devices, and would for all practical purposes end most unlicensed operations in the 902-928 MHz band. This has never been the intent for the 902-928 MHz band, and it is irreconcilable with the FCC's efforts to make more spectrum available for unlicensed uses. Indeed, NextNav cites no FCC precedent for diminishing unlicensed opportunities in order to promote and benefit a single technology for the benefit of a single company. To the contrary, the Commission in the past has rejected proposals to "upset the balance the Commission struck between stakeholders" in a spectrum band;[6] and the Commission should do so again here.

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[5] Petition at 22.

III. THE FCC MUST NOT RESCIND ITS RULE THAT REQUIRES COOPERATIVE TESTING WITH UNLICENSED PART 15 DEVICES TO MINIMIZE INTERFERENCE.

When M-LMS was created in 1995, the 902-928 MHz band was already home to a wide variety of unlicensed Part 15 devices that the Commission had found to be "valuable and in the public interest."[7] The Commission recognized that:

> consumers are now able to purchase cordless telephones operating in the band offering high quality voice operations, wireless local area networks are being implemented in offices and buildings to enable tetherless voice and data transmission, and utility companies are now able to read residential utility meters from the street or remote locations using Part 15 radio devices. In addition to the enormous benefits to both businesses and consumers that will result from the continued growth in the use of the Part 15 industry, our nation's economy also benefits due to the continued development of these new, advanced radio technologies by American companies.[8]

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[6] *See, e.g., Promoting Investment in the 3500-3700 MHz Band*, Notice of Proposed Rulemaking and Order Terminating Petitions, 32 FCC Rcd 8071, 8093-94 ¶ 61 (2017).

[7] *Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems*, Report and Order, 10 FCC Rcd 4695, 4696 ¶ 1 (1995) ("*1995 LMS Order*").

[8] *Id*. at 4699-700 ¶ 8 (citations omitted). *See also id.* at 4712 ¶ 30 (recognizing that in 1995 there were already 4 million Part 15 devices in the band); *id* at 4714 ¶ 34 (citing the "important contribution" of Part 15 devices such as "automated meter reading, inventory control, package tracking and shipping control, alarm services, local area networks, and cordless telephones" that allow businesses "to operate more effectively and efficiently.").

In light of these findings, the Commission sought to craft a regulatory environment that, among other things, "continues to permit secondary operations by unlicensed Part 15 and amateurs across the entire band, but affords users in these services a greater degree of protection to their operations."[9] Specifically, the Commission held that in "close cooperation between multilateration system users and operators of Part 15 [devices]," M-LMS licensees would be required "to demonstrate through actual field tests that their system does not cause unacceptable levels of interference to Part 15 devices."[10] The Commission's directive for cooperative testing was codified in section 90.353(d) of its rules, which states, in relevant part, that "multilateration LMS licenses will be conditioned upon the licensee's ability to demonstrate through actual field tests that their systems do not cause unacceptable levels of interference to 47 CFR part 15 devices."[11] NextNav wants to eliminate that rule.[12]

When the Office of Engineering and Technology and the Wireless Telecommunications Bureau in 2011 granted Progeny's request for waivers of certain rules that effected a fundamental change in the nature of Progeny's offering over its M-LMS spectrum, they reiterated that all of the other M-LMS rules remain in place, including the directive to minimize interference to existing Part 15 devices:

> Included in these rules is the obligation, set forth in Section 90.353(d), that Progeny demonstrate through actual field tests that its M-LMS system will not cause unacceptable levels of interference to Part 15 devices. As the Commission noted, the purpose of the testing condition "is to insure that multilateration LMS licensees, when designing and constructing their systems, take into consideration a goal of minimizing interference to existing deployments or systems of Part 15

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[9] *Id.* at 4701 ¶ 11.

[10] *Id.* at 4737 ¶ 82.

[11] 47 C.F.R. § 90.353(d).

[12] Supplement at A-4.

> devices in their area, and to verify through cooperative testing that this goal has been served."[13]

The Commission should not initiate NextNav's requested rulemaking proceeding to the extent that it would undermine this decades-long policy to minimize interference to Part 15 devices and systems currently operating in the Lower 900 MHz Band. Part 15 users were in the Lower 900 MHz Band first, and their interests require protection before the band is reconfigured on one company's behest.

IV. CONCLUSION

CoachComm's voice communications products are used by coaches and officials in college and high school games, by personnel staging TV shows and other productions, and by industrial users and nuclear power plant operators to coordinate actions in real time. These voice communications are time-sensitive and must convey information fully and accurately without interference or blips that will generate misunderstandings. CoachComm utilizes advanced frequency-hopping spread spectrum ("FHSS"), time-division multiple access ("TDMA") technology, which makes its devices largely compatible with other FHSS devices. However, CoachComm devices will not be compatible with the technical characteristics of the widely deployed network proposed by NextNav, which would blanket a service area with base stations to provide the widespread coverage area necessary for a commercially viable broadband network.

Long-standing Commission policy has encouraged use of the 902-928 MHz band for unlicensed services, and over the decades millions of users have come to rely on unlicensed devices for essential services. Because NextNav's proposal would put these incumbent unlicensed services at risk, the Commission should dismiss the NextNav Petition until such time as NextNav provides concrete evidence of compatibility with unlicensed operations, supported by actual field tests conducted in cooperation with a wide variety of Part 15 operators and manufacturers, including voice operations.

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[13] *Request by Progeny LMS, LLC for Waiver of Certain Multilateration Location and Monitoring Service Rules*, Order, 26 FCC Rcd 16878, 16887 ¶ 25 (2011) (citations omitted) ("2011 *Waiver Order*").

Respectfully submitted,

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